

**REMARKS UNDER 37 CFR § 1.111**

**Formal Matters**

Claims 1-28 and 33-36 are pending after entry of the amendments set forth herein.

Claims 1-32 were examined. Claims 1-32 were rejected. Claims 29-32 have been canceled without prejudice above. Claims 33-36 have been newly submitted above.

Applicants respectfully request reconsideration of the application in view of the amendments and remarks made herein.

No new matter has been added.

**The Office Action**

In the Official Action of March 26, 2003, the Examiner objected to the proposed drawing amendment filed on December 9, 2002. the Examiner indicated that the reference numerals "244" and "248" were both used to designate a thermal actuator and that reference numerals "250" and "254" were both used to designate a second thermal actuator. In response thereto, Applicants have submitted on even date with this amendment, a Request for Approval of Propose Drawing Amendment which proposes changes to Fig. 2A to address the Examiner's concerns. Approval of the proposal is respectfully requested in the next Official Action.

The Examiner further objected to the drawings as including reference numerals "248L" and "254L" which were not mentioned in the written description. In response to this objection, Applicants have amended the specification at page 11, the paragraph beginning on line 3 to include reference numerals "248L" and "254L" in the description. Accordingly, the Examiner is respectfully requested to reconsider and withdraw this ground of objection as being no longer appropriate.

Claims 1-32 were rejected under 35 U.S.C. Section 112, second paragraph, as being indefinite. The Examiner considered the use of the term "substantially" to be indefinite in failing to provide a limit to the range in which the invention is to encompass. Although Applicants disagree with the Examiner's assertion, Applicant have nevertheless deleted the reference to the term substantially with regard to the usage objected to by the Examiner, in an effort to advance the prosecution of the instant application. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 1-28 (claims 29-32 having been cancelled above, without prejudice) under 35 U.S.C. Section 112, second paragraph, as being clearly inappropriate.

Claims 1-32 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Zorabedian (U.S. Patent No. 6,108,355). The Examiner asserted that Zorabedian discloses a tunable filter for use in an optical communication apparatus comprising a grid generator mounted for optical alignment in an optical path of a beam, and the grid generator 120 of a first selected optical path length determinative of a first free spectral range; and a channel selector with a tunable second optical path length determinative of a second free spectral range. The Examiner admitted that Zorabedian fails to disclose a grid generator having a first selected optical path length determinative of a first free spectral range substantially corresponding to a spacing between adjacent gridlines of the selected wavelength grid and the channel selector with a tunable second optical path length determinative of a second free spectral range differing from the first free spectral range by an amount corresponding substantially inversely with the number of channels of the selected wavelength grid and said second optical path length tunable to a selected one of the number of channels of the wavelength grid. However, the Examiner considered these distinctions to be "process limitations": in product claims, and concluded that these distinctions did not patentably distinguish the claims of the present application over Zorabedian.

In response thereto, Applicants have amended claim 1 above to further recite means for maintaining the first optical path length of the grid generator; and means for varying the tunable second optical path length of the channel selector to tune the optical beam to a selected channel of the wavelength grid and substantially attenuate the other channels of the wavelength grid. Accordingly, it is respectfully submitted that the claims as amended, recite structure responsible for carrying out what the Examiner had previously considered to be "process limitations". Zorabedian neither discloses nor suggests such means, as already indicated by the Examiner. Further, all other rejected claims, which are still pending, depend from claim 1 and likewise define over Zorabedian. In view of the above amendments and remarks, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 1-28 (claims 29-32 having been cancelled above, without prejudice) under 35 U.S.C. Section 103(a) as being inappropriate.

Newly submitted claims 33-36 are directed to a method for filtering an optical beam to a corresponding center wavelength for each of a number of channels of a selected wavelength grid, and include generating a first set of wavelengths within the optical beam having a first free spectral range corresponding to the center wavelengths of each of the channels of the selected wavelength grid; generating a variable second set of wavelengths within the optical beam having a second free spectral range, such that a difference between the second free spectral range and the first free spectral range is

inversely proportional to the number of channels of the selected wavelength grid; and varying the second set of wavelengths such that the optical beam is substantially attenuated at all center wavelengths of each of the channels of the selected wavelength grid except a desired channel. It is respectfully submitted that Zorabedian fails to disclose or suggest all of the recited method steps in newly submitted claims 33-36 and that these claims are also allowable over the art of record.

### **Conclusion**

Applicants submit that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, please telephone the undersigned at the number provided.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-2653, order number NUFO021CON.

Respectfully submitted,  
LAW OFFICE OF ALAN W. CANNON

Date: \_\_\_\_\_

June 26, 2003

By: \_\_\_\_\_

  
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